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1

SEQUENCE LISTING

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<120> NOVEL COMPOSITIONS AND METHODS FOR THE
IDENTIFICATION, ASSESSMENT, PREVENTION AND THERAPY
OF HUMAN CANCERS

<130> MRI-027

<140> 10/071,510

<141> 2002-02-08

<150> US 60/267,276

<151> 2001-02-08

<160> 19

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 242

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 57, 62, 71, 78, 117, 133, 137, 207, 219, 226, 229

<223> n = A,T,C or G

<400> 1

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gngtctactt nttccacnca taattataaa agaataagaa tcgacaaaaa tattttnttt 120
ccataatatg tanaggnggt tggtttcctt tttttttttt ttcttttctt ttaacttttt 180
tttttttttt tttttttttt gggctcnaaa gggggtagnng ggggtncntnt aggacctgcc 240
cg                                                                                   242
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<210> 2

<211> 417

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 338, 349, 388

<223> n = A,T,C or G

<400> 2

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tatatttagt ttttcattct gaatagactg aaaaaatata tgaattagaa atttatattaa 120
gaccatcttt cttttgttgc tttttttaaa catttacttt tctttaagcc ataaggatgc 180
ataaattata cagggcatga cttatgagt aacatataca ggtatttcag aaataacaga 240
acacgtctag aaatgtatgg tggtaatat aatctataca ttttttggca tgatttgtac 300
attgacattg tatgaaatga gcacactgag ggtttttngg tgggtactgnc gcatccaagg 360
aggttgggga gaactatata agaatgtntt ataatcacta ttttaaataa agtaaaa 417
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<210> 3

<211> 512

<212> DNA

<213> Homo sapiens

<400> 3

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cgtgactgag gacagtgaaa agagcccacc tgggtgtagag tgctcatttt agctgccaaag 60
aaaagcctaa tttatttttca gggcaaaact tctgcactgg gacaaatgtc ttcattataa 120
tccaaaagca gcatcaggaa aagaagctga actgtgcgaa tagaaatgaa tggggctgct 180
gctgctgctg ctgcttttctt tttaatcagt agaaatggaa ttctgcctgc caaacagaag 240
tctaggagga acctgcagac ggcccctgta ctgagggcat tttgtcaggg cttaaagcaa 300
ccttcaagat catgacactc tgctatgagg accgaaagaa cttggagata aatatacatg 360
tactatgtgg tgggaccgat tttgaatctg aactaaatta aatgatggaa aacgaccttg 420
ggtgagttca ttcattggctg aacttgctgg gaatgataca acttttcaaa ataatttggtt 480
tccttcaaat gacaccaaca cctatagtta ag 512
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<210> 4

<211> 356

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 1, 17, 24, 39, 95, 98, 113, 116, 130, 143, 153, 154, 155,
164, 165, 172, 174, 190, 192, 198, 202, 206, 207, 238, 245,
246, 247, 253, 285, 295, 299, 300, 302, 338

<223> n = A,T,C or G

<400> 4

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ncggttgaaac tacgganaac aacncgctgc cttcacagna cctagagtct cctttggagc 60
taccaacctc gccgaaggta cggcgacaca gacngangt gtacaagctt ttntanatgg 120
tggatattcn acaattaaat tcntacgtac tcnngtcca gtcnngagtc cnantgagct 180
gtttgctaan tnatgaantt cnttcnngca cgtgaagggc aaagagaaat aagggccnac 240
ttccnnaaag ggnttcctcg cgcatttagg tatcaggctt acttnagtat gtatngccnn 300
cntccgagcg ggagagccaa ggggtgctgta taaaattnaa aggaataaca taaaaa 356
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<210> 5

<211> 577

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 53, 58, 59, 143, 173, 197, 242, 303, 432, 491, 504, 514, 537

<223> n = A,T,C or G

<400> 5

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agaaccataa tgatggcctc cccggcaaag aagaaccaac ccgtgttacg cctgaggttg 120
caattttttg aattttttgca gtnagaccct ggcatgacc ttgagcagta ggngataaat 180
tccacatgct tagcgtncca gtaatggaac actaggcata aatgggttat taaagtatcc 240
anaattaaca tgcttagctg tgacattgga aaggcaatgt gtttgctgtg gcacacatac 300
tantaaataa tgactggtcc gaatttggtt ttcgtttgtc tattaaagtc aatttactaa 360
ggcagggagg gccagagct gtgctgtcca gttcaatagc catgcgtgac tgctaaggac 420
ttccaaagtg gntagtccaa tgtcaggtat gctgcaagtg tcaaacacac actggatttc 480
aaagactaaa nccaaaaaaa tgtnaaatca tctnaatatt ttggttatac tcggttnaag 540
aaaataaaat tattttttgcc ttttatgttt ttaaaag 577
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<210> 6

<211> 331

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 3

<223> n = A,T,C or G

<400> 6

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ggncaccaca ctctacaaag gcagtcaact acatgacaca ttccgcttct gcctgggtcac 60
caacttgacg atggactccg tggtgggtcac tgtcaaggca ttgttctcct ccaatttgga 120
ccccagcctg gtggagcaag tctttctaga taagaccctg aatgcctcat tccattgggt 180
gggctccacc taccagttgg tggacatcca tgtgacagaa atggagtcac cagtttatca 240
accaacaagc agctccagca cccagcactt ctacctgaat ttcaccatca ccaacctacc 300
atattccagc gacaaagccc agccaggcac c                                     331
```

<210> 7

<211> 446

<212> DNA

<213> Homo sapiens

<400> 7

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acactctaca aaggcagtca actacatgac acattccgct tctgcctggc caccaacttg 120
acgatggact ccgtgttggc cactgtcaag gcattgttct cctccaattt ggacccagc 180
ctgggtggagc aagtctttct agataagacc ctgaatgcct cattccattg gctgggctcc 240
acctaccagt tgggtggacat ccatgtgaca gaaatggagt catcagttta tcaaccaaca 300
agcagctcca gcacccagca cttctacctg aatttcacca tcaccaacct accatattcc 360
caggacaaag cccagccagg caccaccaat taccagagga acaaaaggaa tattgaggat 420
gcgctcaacc aactcttcga aacagc                                     446
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<210> 8

<211> 497

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 497

<223> n = A,T,C or G

<400> 8

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tgaatgcctc attccattgg ctgggctcca cctaccagtt ggtggacatc catgtgacag 120
aaatggagtc atcagtttat caaccaacaa gcagctccag caccagcac ttctacctga 180
atttcacat caccaacctt ccatattccc gggacaaagc ccagccaggc accaccaatt 240
accagaggaa caaaaggaat attgaggatg cgctcaacca actcttccga aacagcagca 300
tcaagagtta tttttctgac tgtcaagttt caacattcag gtctgtcccc aacaggcacc 360
acaccggggt ggactccctg tgtaacttct cgccactggc tcggagagta gacagagttg 420
ccatctatga ggaattttctg cggatgaccc ggaatgggta cctgcccggg ccggccgctt 480
cggctttaga actagtn                                     497
```

<210> 9

<211> 488

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 27

<223> n = A,T,C or G

<400> 9

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atagggcgaa ttggagctcc ccgcggnggc ggccgaggta ccattccggg tcatccgcag 60
```

```
aaattcctca tagatggcaa ctctgtctac tctccgagcc agtggcgaga agttacacag 120
ggagtccacc ccggtgtggt gcctgttggg gacagacctg aatgttgaaa cttgacagtc 180
agaaaaataa ctcttgatgc tgctgtttcg gaagagttgg ttgagcgcac cctcaatatt 240
ccttttgttc ctctggtaat tgggtgggccc tggctgggct ttgtcctggg aatatggtag 300
gttgggtgatg gtgaaattca ggtagaagtg ctgggtgctg gagctgcttg ttgggttgata 360
aactgatgac tccattttctg tcacatggat gtccaccaac tggtaggttg agcccagcca 420
atgggaatga ggcattcagg gtcttatcta gaaagacttg ctccaccagg ctgggggtcca 480
aattggag 488
```

<210> 10
<211> 463
<212> DNA
<213> Homo sapiens

```
<400> 10
ccgcgggtggc ggccgccccg gcaggtacat caccctgctg agggacatcc aggacaaggt 60
caccacactc tacaaggca gtcaactaca tgacacattc cgcttctgcc tggtcaccaa 120
cttgacgatg gactccgtgt cggtcactgt caaggcattg ttctcctcca atttgaccc 180
cagcctgggtg gagcaagtct ttctagataa gaccctgaat gcctcattcc attggctggg 240
ctccacctac cagttgggtg acatccatgt ggcagaaatg gagtcacag tttatcaacc 300
aacaagcagc tccagcacc agcacttcta cctgaatttc accatcacca acctaccata 360
ttcccaggac aaagcccagc caggcaccac caattaccag aggaacaaaa ggaatattga 420
ggatgcgctc aaccaactct tccgaaacag cagcatcaag agt 463
```

<210> 11
<211> 302
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 6, 52, 53
<223> n = A,T,C or G

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<400> 11
accgcngtgg cgcccgcccc ggccaggtaca tcaccctgct gagggacttt tnnggacaag 60
gtcaccacac tctacaaagg cagtcaacta catgacacat tccgcttctg cctgggtcacc 120
aacttgacga tggactccgt gttggtcact gtcaaggcat tgttctcctc caatttggac 180
cccagcctgg tggagcaagt ctttctagat aagaccctga atgcctcatt ccattggctg 240
ggctccacct accagttggt ggacatccat gtgacagaaa tggagtcac agttttatca 300
ac 302
```

<210> 12
<211> 534
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 18, 463, 474, 518
<223> n = A,T,C or G

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<400> 12
agggcgaatt ggagctcncc gcggtggcgg ccgaggtacc acctgaaggc cctcacactc 60
aacttcacca tctccaatct ccagtattca ccagatatgg gcaagggtc agctacattc 120
aactccaccg aggggggtcct tcagcacctg ctacagacct tgttccagaa gagcagcatg 180
ggcccccttct acttggggtg ccaactgatc tccctcaggc ctgagaagga tggggcagcc 240
actggtgtgg acaccacctg cacctaccac cctgacctg tgggccccgg gctggacata 300
cagcagcttt actgggagct gagtcagctg acccatgggt gtcacccaac tgggcttcta 360
ttgtcctgga cagggatagc ctcttcatca atggctatgc accccaaaat ttatcaatcc 420
gggggcgagg tacctgcccc gggcgggccg cttaaaacta ggngggatcc ccnggcttg 480
```

caggaatttc gatattcaag cttatcgata cccgtccnac cttcgagggg gggg 534

<210> 13
<211> 290
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 15, 16, 39, 41, 71, 106, 129, 137, 140, 149, 164, 167, 226,
245, 251, 263, 268
<223> n = A,T,C or G

<400> 13
tggggggaaag ggagnnccca acgatcctgg aactttaant ntggaaagag tgagattcag 60
aaatcgccac nactggactt taagggacgt cctgtgtcag cacaanggac tggcacacac 120
agacacacna gaccgangan aaactgcana caaatggaga tacnaanact tagaaggaca 180
gtccttttca cctcatccta cttgtccaga aggtaaaaag acacanccag aaagaaaagg 240
catcngctca nctctcagat cangacangc tgtggatctg tggcgggtact 290

<210> 14
<211> 430
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 93, 315, 407
<223> n = A,T,C or G

<400> 14
gcgtccgaat ttcctgggta ccccgatatat aagaaaatgt taaagtcagg caggaaaact 60
atagaattaa agccttatag tatattatat agnaaagccc tatatagtat agacagaaaa 120
gttttagggaa ggcccacaaat tgcaaagaaa agtgggtggtc acggaacaag ggaatgtcat 180
acaaatgtgg acacacactg cgttactgag cgccacgtct cataggtgag aagcataact 240
ctagaagggtg agaaatgaga attttcactt ccataccttcc atttgtttgt tgactctgcc 300
atttactttc ctttnttttg tattttcatt ttccttttaa aaatggaaat atgaattttg 360
aatttctgct ctatctcaca ggttttttgt ggggatgcat ttaaaaangtt taattagtaa 420
ataatgggtat 430

<210> 15
<211> 435
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 39, 242, 363, 393, 404, 406, 412
<223> n = A,T,C or G

<400> 15
ccaaactatt tggacagaat ggcttcaaaa gctagggcna aatgttcaca ttataaaaag 60
ttaaatatta ccttcaatac ctgtcagtag cctactgaca aattatgact aaacaaaggt 120
atttgtatga ctatgtaata gatcatccgc tgaaaagtaa aacaaaataa caaaaaaact 180
tgcctaatag ggaaagcatg ctttaataaaa ggaaatgcac gaagttataa acatgttttg 240
tnagtaagta ttcagaatta aaattatgtg atacattttt atgattgctt aatgatcctt 300
ggatgtcaga ttccttgggt ctatttatag ctaaattata atgaaaaatt caaggcttgc 360
tnagcaact ctgtcaacaa atatattagt ttngcttata tatntngatt cnttatgtgg 420
gaaaaattac tacc 435

<210> 16

<211> 493
 <212> DNA
 <213> Homo sapiens

<400> 16
 cggccggccc ggggggatgcc gagtcccaag aggccgagtt tgagaggctg gtggcagaat 60
 tcccggagaa ggaggcccag ctgtccctgg tggaaagcga gggctggctg gtgatggaga 120
 agtcttctcc ggagggtgct gccgtgggtgc aggaggagct caggggagctg gcagagtcgt 180
 ggccgggcctt gaggctgctg gaagaaagtc tgctgagcct catcagaaac tggcatctgc 240
 agaggatgga agtggattcg gggaagaaaa tggttttcac caacaacatc ccaaagtcag 300
 gatttctcat caatcccatg gatcctatcc ccaggcatcg tgcacgcgtg agtctgtcta 360
 gcagggtggt gggagaaggg gccaggcccc aggtcaagag gtgggtaggg gtctccagca 420
 caggccccctc cctgtctggg gcaacatgct ctgctctgag gacttggcca cgtcctgtct 480
 catttgagcc tgc 493

<210> 17
 <211> 315
 <212> DNA
 <213> Homo sapiens

<400> 17
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 gaaataaagt taggagcagc aggaggaggg tctgtgtggg cacatctcct tcaggggcat 120
 ggtactgttc atggacagag gaagtcctat ggcataatgct gggacagaca gtgaagggtg 180
 ggtcttacaa agaggcttta cgtagagta taataatcac ttatctgtat gcacttatga 240
 atgatctcac cggatgtgaa gaatatgtat ttttaaaaac agcatgaaac ggcctgtaat 300
 cccagtactt ttggg 315

<210> 18
 <211> 339
 <212> DNA
 <213> Homo sapiens

<400> 18
 acttattgaa tcatcgaatt cattgaagtt tggctccaac ctatcatatc gccgatgttt 60
 actttttcct attcttcata aagttctaaa ttcagaatgt gaggtggaca aattcatttc 120
 agttccacaa gtggtagcat ttaaataatca gcagcttaag tattcaaaat taatagattg 180
 catttttaaa atgggtgaaat tctgacagtt tgcagggaaa aggtgctgaa tatcttgata 240
 taatttacat acttctataa acaggcattt ttataccttt ggaaagataa atgagtagaa 300
 accaagtatt ttacaattct aatagttata ctgacatgt 339

<210> 19
 <211> 520
 <212> DNA
 <213> Homo sapiens

<400> 19
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 tactttgctc tttaactttg ttcgatcctt cttggatcag tcttgcaatt cattcttgct 120
 ttttcctgaa taacatctat gttttgccct cttttgagtg ctatcttaat atgccagcct 180
 atttctacct ttcttgtgca gggtagcata atttttactt tccattatac ctcagtccca 240
 caccttggtg tctgtttatt tcaataccta agatacttat cctcagttcc tagcttactt 300
 tagttctgaa agttggatat ccataattgt agtggcttta aatctgtaaa acacatatgg 360
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 aaaataactg agttcaatga tattaaaaac ataagtcagt ttaactatct tttttttgag 480
 acaggggctc tgtcaccaag gctagagctg cagtgagtc 520